

kidscreen's **ANIMATION SERVICES**

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KINDERNOMICS is a media, technology and education company. Beyond animation for children, they also integrate on-air and online content and develop multi-platform content.

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Produced by Kindernomics Distributed by Kindernomics Genre Preschool Education Format Series of 3 to 4-mins Animated Shorts, HD Language English



NIGHTBREEDS is about an unlikely coalition between humans and vampires as they go on a quest to save both their kinds from destruction.

MONSTROU STUDIO is an independent producer and distributor with dual capabilities in live-action TV media and 3D animation productions.

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Produced by Monstrou Studio Pte Ltd, SweatBox S.L., TV3 - Televisió de Catalunya Distributed by Monstrou Studio Pte Ltd, SweatBox S.L. Genre Futuristic Kids Animation Format 23 mins, 3D Language English and Catalan



SY-PROJECT chronicles the life of a half-human, half-machine hybrid being in a post-apocalyptic world. Who is she? What is the mission behind her existence?

DRAWIZ SINGAPORE provides high-end visual effects and animation for TV-CM, music videos, TV-shows and movies.

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Produced by Drawiz Singapore Pte Ltd Distributed by Drawiz Singapore Pte Ltd Genre Action Format Film, HD, 3D Stereoscopic Language English

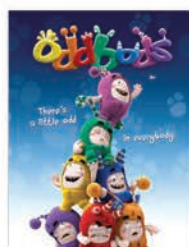


DREAM DEFENDERS is a CGI action-comedy series, targeted at children 6 to 12 years, that chronicles the adventures of twins Zane and Zoey.

TINY ISLAND PRODUCTIONS is Singapore's leading stereoscopic 3D CG animation company. Its current productions include TV and film projects produced in collaboration with partners from Japan, Korea, Thailand and Hong Kong.

Tel: David Kwok, +65 9693 3870
Email: davidk@tinyisland.net

Produced by Tiny Island Productions Distributed by Classic Media Genre Action-Comedy, CGI, Animation Format 26 episodes x 22 mins, HD, Stereoscopic 3D Language English



ODDBODS is a 3D animated comedy series for gaming and mobile devices as well as IPTV. The furry-suited Oddbods, though not quite human, possess human emotions and often find humour and frustration in everyday situations.

ONE ANIMATION is an independent 3D animation and visual effects studio merging experience and the ability to produce quality films and TV series.

Tel: +65 6273 1785
Email: bisdev@oneanimation.com

Produced by One Animation Genre Children 6-12 Format TV, Mobile & Interactive Content, HD & 360



WENDY charts the adventures of teenage heroine Wendy and her equestrian-centred life on a stud farm complete with gossip, friendships and romances.

AUGUST MEDIA creates and manages high-quality content for TV, film, publishing, mobile and interactive platforms.

Tel: +65 6592 0577
Email: norin@redkite-animation.com

Produced by August Media Holdings, Red Kite Animation, Wendy Promotions Distributed by ZDF Enterprises, France Televisions Distribution, August Rights Genre Drama Format 26 episodes x 24 mins, HD Language English, German, French

EDITORIAL



NOW FOR SOMETHING COMPLETELY DIFFERENT

Commissioning broadcasters are making no secret of the fact that they're on the hunt right now for animated projects that stand out visually from the crowd, namely the predominant forms of CGI or 2D squash-and-stretch that occupy a good chunk of airtime on kidnets the world over.

Sure those stand-out concepts start with arresting character designs and equally intriguing storylines crafted by their creators, but it's in the execution where the balance of the life of those unique visions hangs—whether they flourish or fall flat largely depends on the service providers a producer chooses.

And in this special Animation Services issue of *Kidscreen*, we turn the spotlight on a number of those innovative animation houses. For example, senior online writer Jeremy Dickson takes a look at how CGI pioneer Polygon Pictures in Japan keeps moving the style forward as an artform (p. 14) almost three decades after the shop's launch. Moving over to mixed-media, arguably where the most visually interesting projects are coming from right now, features editor Kate Calder delves into the multi-pronged production of CBBC and FremantleMedia's new puppet-based series *Strange Hill High*. (Between this series and Disney XD's *Crash & Bernstein*, I think we're at the dawn of a new era in puppet-based shows for tweens. Nick's 2006 series *Mr. Meaty* may have been just a little too far ahead of the curve.) I personally haven't seen anything like it before, and was fascinated to learn how the puppetry elements are being blended with CGI and a host of after-effects animation techniques to craft the creepy comedy. Finally, senior writer Gary Rusak's piece on stop-motion animation (p. 24) serves as a great reminder that productions can rise and fall on the amount of attention paid to the details and that price shouldn't always be the determining factor in choosing an animation style or service provider.

And as we close the year out at *Kidscreen*, I'd like to end on a personal note. After six and a half years of ably covering all things kids TV, Kate will be leaving our fold. She's not exiting the kids space, though, as she's accepted a publicist position with Corus Entertainment's suite of children's channels that includes YTV and Treehouse. We will miss her and wish her all the best in her new career. Speaking of best wishes, here's hoping that all of you have a happy holiday and a bright, shiny New Year. We'll see you at Kidscreen Summit in February!

Cheers,
Lana

kidscreen

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**3D
STEREOSCOPIC**

Service house Tiny Island's *Dream Defenders* now airs on US 3D channel 3net

By Kate Calder

3D's NEW DIMENSION

While the small screen is currently the target for consumer electronics makers pushing 3D-enabled products, it may be even smaller screens like 3D tablets and phones that gives the production of 3D stereoscopic kids content the boost that producers and service houses working in the space are banking on

Three years ago, James Cameron's *Avatar* ushered in a new era of 3D stereoscopic entertainment. The film wove a new technology into the storytelling and grossed more than US\$2.7 billion worldwide. It also kicked off a mass upgrade to 3D screens in movie theaters around the globe, with 3D-enabled screens jumping from approximately 12,000 in 2009 to almost 42,000 this year, according to media research firm IHS Screen Digest.

"As the big screens have converted, the demand for 3D content has started to draw content towards it," says Michele Martell, COO at L.A.-based 3D live-action and animation house SD Entertainment. TV manufacturers are also rolling out better, cheaper 3D-capable sets (*Screen Digest* predicts 43 million 3D TV sets will be sold worldwide by year's end) and glasses-free, auto-stereographic sets are only a few years away from reaching the mass market. In the meantime, 3D products from personal GoPro cams to tablets and smart phones are starting to flood retail shelves. *Screen Digest* reports that consumer spending on 3D products across all categories will hit US\$338 billion this year. "The momentum in entertainment is in these other devices," says Martell. "It starts the vocabulary and the visual sensibility for people."

TV IN 3D

According to *Screen Digest*, there are now some 37 unique 3D channels worldwide, but it suggests lack of content is an issue for them. In the meantime, as the channels start building their content pipelines, current on-air programming remains largely comprised of event-driven live-action fare, such as sports events and concerts.

Last year saw the US debut of 3net, a joint-venture 3D network from Sony, Discovery and Imax. At launch, the net bowed a kids block that airs weekdays from 5 p.m. to 6 p.m. and weekend mornings from 9 a.m. to noon. Besides including 3D family films from Sony Pictures, such as *Cloudy with a Chance of Meatballs*, original live-action series *Feeding Time* and 3net exclusive *Puppy Bowl* in the lineup, the net acquired original 3D stereoscopic toons *Bolts and Blip* from Toronto, Canada's ToonBox and *Dream Defenders* from Singapore-based Tiny Island.

3net's head of acquisitions, Mark Ringwald, says more than half of DirectTV's 19 million customers are HD subscribers, which automatically includes 3D transmission. Of course, how many of those HD subscribers have 3D sets is unknown, but he points to recent statistics that project as many as 14 million 3D-capable TV sets being installed in US households this year. Though 3net doesn't get ratings information, feedback from DirectTV has shown that animation, which Ringwald admits was a bit of an experiment for the network, performs well—a few episodes of *Dream Defenders* have even made the most-watched list on the network.

Beyond North America, 3D theater screens and 3D TV platforms are also emerging. "Manufacturers have realized that if you're selling 3D sets, you better have some 3D content, so they've created their own networks that are available over the internet. And because they are all internet-connected devices, you can watch the 3D content over their internet-enabled networks" says Ringwald.

ToonBox's *Bolts and Blip*, which airs on 3net, has also been sold to 3D channels Skylife in Korea, BSkyB in the UK and Poland's Canal+, as well as for regular transmission in several territories worldwide. ToonBox's VP of business development and sales, Thom Chapman, says 3D sales for the company so far have included separate rights for stereo versus non-stereo versions. So, while 3net has the rights to the 3D version of the series, the prodco is still free to sell *Bolts and Blip* in non-stereo to standard-transmission networks.

"The best deals happen when carriers own both a 3D feed and an HD feed," says Chapman. ToonBox's recent deal with Poland saw the stereo rights go to Canal+ and the HD rights go to the subsidiary of teleTOON+, which meant separate license fees for both versions.

Chapman admits, however, that since most commissioning broadcasters don't have stereo capabilities, and won't allocate dollars for a 3D version, it's really up to producers to figure out how to finance the extra cost associated with producing in 3D.

FINDING A MEDIUM FOR THE MESSAGE

This summer L.A.-based SD Entertainment set up the first-ever stereoscopic production studio in the US at Austin City Limits Live, a 2,750-seat concert venue that can now transform into a 10,000-square-foot sound stage and stereoscopic 3D/2D production facility.

"We've permanently equipped it as a 3D production space, which brings down the cost of production by about 50%," says Martell. "A big part of the cost of shooting 3D live action is that you have to roll trucks every time because there is no place that has 3D already there."

"We know the power of sampling," says Martell. "Once people see content in 3D that they can relate to, it starts to change their perception of how much they need it and want it." Besides live events, SD is banking on this appetite spreading further into the family entertainment space. Created by the former heads of MGM Animation, Paul Sabella and Jonathan Dern, SD Entertainment has roots in animation and has also transitioned HIT Entertainment series *Bob the Builder* into 3D.



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However, with glasses-free television sets still a few years away and the cost of animating in 3D still about 20% to 30% higher than CGI, the momentum to produce original stereoscopic kids content is maintaining a slow and steady pace. In fact, SD is one of many studios seeing the potential in producing 3D to emerge first on smaller screens such as mobile devices, tablets and gaming consoles.

"The biggest breakthrough, and the most exciting part for the kids production community, is what's happening on smaller screens," says Martell. She adds that it changes the experience entirely. Now, it's no longer just event viewing.

This fall, the company acquired Curtis Publishing, which owns iconic US publication *Saturday Evening Post* and children's magazine titles *Humpty Dumpty*, *Jack and Jill* and *Turtle*. "We like working with properties that exist as brands, but don't necessarily have stories or a linear entertainment piece," she notes. So SD will be diving into those archives and creating short-, medium- and long-form stereoscopic content suitable for hand-held devices.

"You can't put all your financing together based on thinking you're going to sell to television. You have to build your model and make your money back on what exists, knowing that 3D is the longtail upside," says Martell.

FUTURE-PROOFING

Tiny Island CEO David Kwok also has his sights set beyond TV for the company's properties, including *Dream Defenders*, which had a budget of US\$5.2 million and was partly funded by Singaporean government org MDA. A spin-off of the series is also available in the US for download on Nintendo's 3D website, and Kwok is looking into developing content for 3D phones, tablets and goggles that will offer an immersive experience.

"I am not saying that we stop producing shows for the current traditional platform. I am saying that we need to plan ahead to future-proof content," says Kwok. "Before we start producing any shows, we need to work out a plan to ensure the content that we produce can continue to tap these new platforms for the next five years to maximize our revenue."

To do that, Tiny Island designs content for traditional television, and stereoscopic and future auto-stereoscopic 3D platforms. And besides downloading *Dream Defenders* to watch on the glasses-free Nintendo 3D player, the prodco worked on a 3D eBook and struck a deal with Touch Music Publishing for a music video.

Bolts and Blip's ToonBox has amped up its 3D production ca-

pabilities, growing from a 2,500-square-foot studio with 30 staff to a 12,000-square-foot space with 150 employees to take on its 3D feature film *Nut Job* and 3D interstitial series *The Beet Party*. Chapman says the latter has been picked up by consumer electronics giant LG, which will preload the series onto its smart devices.

"When *The Beet Party* launches on these devices, you'll get a sense of the appetite because it will be available on a download-to-own basis, much like iTunes," says Chapman. "You'll be able to get analytics of how many people are downloading and watching those stereoscopic shorts."

WORKING WITH DIMENSION

"As a producer, you have the technical information on one end that you have to be educated in, but you also have the creative information as well. It's not just the script, it's a new way of storytelling. It's sculpting versus painting," says Alexander Lentjes, a stereographic consultant for Bristol, UK-based 3-D Revolution Productions.

Why sculpting? Because, Lentjes explains, producing in three dimensions involves taking depth, volume and placement into consideration. It means guiding the eye through the space of the frame in a set direction, rather than reading an image from left to right. Ideally an original script will be penned with 3D pacing and elements in mind, but storyboarding really requires having a stereographer on-board to optimize the use of 3D.

Kwok at Tiny Island also has expertise in making the most of 3D stereoscopic. He says 3D effects are often used for establishing shots to give the audience a stronger feel of the space and depth of an environment. "Occasionally we have objects flying out from the screen to create a certain form of sudden excitement for the audience. However, we use it with care and don't

overdo it, as some people might feel uncomfortable with such effects," says Kwok.

As for the technical side of things, Lentjes says it's crucial that studios have up-to-date compositing packages, which now offer 3D functionality, and CGI packages that also include 3D camera functionality, which eliminates the need for external plug-ins or custom software. However, a constant challenge for Lentjes is working on pre-existing scripts that need to be revised for 3D, not to mention the short turnaround times and

EDITORIAL INTEGRITY

All of the producers we spoke with agreed that producing compelling 3D stereoscopic content relies on crafting storylines that integrate 3D elements into the plot, as opposed to using the visual effect as a gratuitous gimmick.

"Avatar was the frontrunner for that where a real storyteller went in to understand how 3D technology works and made the technology work for them as opposed to being led by the technology. I think some producers are still letting the technology

lead them, instead of making the technology work for them and telling a good story," says Nigel Stone, CEO of Platinum Films.

Stone feels that Platinum's 3D/CG series *Matt Hatter Chronicles* marries the effects and storytelling by incorporating the 3D elements right into the premise of the show. The series revolves around 13-year-old Matt, who's charged with protecting a movie theater that

is a gateway to another dimension, which he can enter with the aid of a pair of multivision glasses. Platinum and its co-pro partner Toronto-based Dream Mill worked with Arc Productions, also in Toronto, on the 3D bits, which included creating segments in which the character puts on his glasses and viewers see the 3D effects that Matt does.

Stone says he looked worldwide to find the right production studio for the series. In the end, it was Arc's track record working on films such as Tim Burton's *9* and *Gnomeo and Juliet* that

"I think some producers are still letting the technology lead them instead of making the technology work for them and telling a good story"

—Nigel Stone, CEO of Platinum Films

small US\$-1million to US\$5-million budgets typical for converting 2D series and features into 3D.

Lentjes often has to work with what already exists. In one case, he met with a stubborn producer who refused to slow down elements of quick-paced 2D film that were simply too frenetic for 3D optimization. Currently, he's charged with guiding a studio in turning its 2D characters into volumetric models and putting depth in the backgrounds in order to create a 3D version.

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Matt Hatter's 3D segments further the story and are accessible on standard and 3D platforms

proved they could create great visual work and manage a robust pipeline.

"When you spend so much effort on a property, you want to make sure that your partner loves it as much as you do and that you're putting it in safe hands," says Stone.

Arc used existing technology to create a 3D-looking alternative to 3D stereoscopic called Multivision (just as in the story) in which images seem to pop, but that kids can see on regular TVs without wearing glasses. Arc also rendered those same segments in stereoscopic 3D, available to watch on a *Matt Hatter* website with the help of glasses.

"The key here is the relevance of 3D, whatever we show in 3D is going to be led by the story," says Stone. The Multivision segments are used sparingly, and when kids opt to put on the glasses and see special content, it's a treat—it becomes immersive.

"When we produced the 3D sections, we had to future-proof them," says Stone. "Sooner or later all homes will have 3D TVs, so we've created adaptable footage to suit a 3D TV, game console or 3D application." Creating separate versions of the segments that work on different platforms in either 3D or Multivision took more time and money—the first two series (26 eps) rang in at a combined total of US\$12 million.

Like Stone, Kwok stresses that storyboard planning is never more essential than in 3D. The process is further fine-tuned at the 3D layout stage. At Tiny Island, the director, the storyboard artist and the 3D layout team work closely together. The stereographer pays attention to how the shot is staged and how the camera is moved, being careful not to place objects too close to the camera for prolonged periods.

"We are producing shows for children, so we need to optimize the use of the 3D effects to tell the story, but at the same time ensure it does not give the audience an uncomfortable feeling," says Kwok.

FOR KIDS' EYES ONLY

Being mindful of what 3D content is not only suitable, but also safe for children is an area 3D producers are struggling to understand better. At issue is the difference between adults' and children's faces, especially the smaller space between a child's eyes. What looks good to producers in a studio, might not look good to kid viewers. Additionally, content produced for the big screen can't be reduced easily to fit a small screen, and vice versa.

Moreover, there is a concern that altering resolution and aspect ratios of a 3D production to fit a different size screen could damage kids' eyes. SD Entertainment has set up a taskforce to compile research and information surrounding the production of 3D content for children. Because frames are produced for each eye in 3D stereoscopic, there's a concern that poorly produced content and mistakes can draw the viewer's eyes in two different directions at the same time, and in extreme cases, tear delicate eye tissues.

"The point of the research was to debunk the notion that 3D content overall could be bad for them," says SD's Martel. In fact, a report about using 3D content in schools put together by the American Optometric Association says that 3D viewing can identify undiagnosed eye deficiencies in young children because 3D viewing requires that both eyes function in a coordinated manner as they converge, focus and track the 3D image.

"It might actually present an opportunity for parents to be aware earlier than usual if their child needs glasses," says Martel.

However, the report also warns that poorly produced 3D products can cause fatigue and eye strain. Additionally, varying brightness and contrast levels, excessive and rapid use of the 3D effect, and insufficient control of objects appearing at the edge of the screen can all wear those peepers out. ➤



Working on high-profile, bigger-budget CGI series like *Tron: Uprising* (above) and *Transformers Prime* (opposite) has become the hallmark of Japan's Polygon Pictures

CGI

STREAMLINING CGI

By Jeremy Dickson

With budgets shrinking and demand for high-quality CGI-animated kids TV series increasing, service studios around the world are focusing on their strengths and finding new ways to improve efficiencies.

For today's CGI animators in the kids entertainment industry, doing more with less is becoming de rigueur. After all, providing animation services in a landscape marked by economic instability, increased competition and lower commissioning fees is all part of another day at the office right now.

But it's not all doom and gloom, as a number of established and emerging studios can attest. To improve efficiencies in CG pipelines, many are implementing new technologies, balancing original development with third-party service work, finding co-pro partnerships that make sense, adding more detailed management systems, and placing an increased emphasis on hiring the right talent.

Regardless of size, location and level of available government support, studios have continued to adapt.

ONE STEP AHEAD

For Japanese CGI house Polygon Pictures, producing high-quality CGI-animated series—including *Transformers Prime*, *Tron: Uprising* and *Star Wars: The Clone Wars*—has been challenging, given Japan's high labor costs and lack of subsidies.

To compete with lower-cost service centers like India and China, the studio has focused on getting the most from its staff, drawing new ideas from Japan's rich culture and history of manga and anime styles, and using very detailed management processes.

"In the areas that we work, we don't implement cutting-edge technology, but we stay ahead by how we apply and combine the existing technology with detailed execution," says Polygon CEO and president Shuzo Shiota.

"With TV, it comes down to speed, so we create tools that allow us to expedite all of our processes, and we create job-tracking or task-management systems so it's a very managed production."

Some time-saving solutions Polygon employs include semi-automated rigging systems, lighting rigs that can be used for 80% of the company's shots, and the creation of character models that help its animators develop two-legged characters in half the time it took in the past.

Launched in 1983 (making it one of the oldest CGI animation studios in the world), Polygon is one of the first Japanese shops to employ foreign artists and begin outsourcing work to lower-cost countries.

"Currently 80% of the CGI work is done in-house, and 20% is outsourced," says Shiota.

"With *Transformers Prime*, we've been outsourcing a portion of the production to Malaysian prodco Silver Ant and also to Thailand's Kantana Studio."

Polygon also recently formed its first business entity outside Japan. A joint-venture with Silver Ant in Malaysia known as Silver Ant PPI is expected to launch in January. Creating digital animation not only for TV, but also for video games, films, websites and smartphones, Polygon places no limits on what it can produce, but is mindful of the projects and progressions it makes.

"We will, of course, continue to create great CGI animation for kids, but we do understand that the series we are working on are extremely high-budget and don't come around every day," says Shiota.

To maintain its presence in the market, Shiota points to the company's desire to aggressively implement 2D digital pipelines within its CGI pipeline to create different animation styles at a lower cost. Looking ahead, it also has two new Japanese hybrid series in the works—a science-fiction show for tweens and a kids series in the fantasy realm.

Placing an emphasis on broadening its services and global reach has also been a strong driver for Bangalore, India-based production services and distribution firm Technicolor. It's survived nearly 100 years in the business and is currently partnering with the likes of DreamWorks Animation on Nickelodeon's hit CGI series *Kung Fu Panda: Legends of Awesomeness* and *The Penguins of Madagascar*, as well as Nick original *Fanboy & ChumChum*.

CLIENTS FIRST

Besides offering a raft of animation services including concept art, asset creation, motion-capture cleanup, lighting, key-framing and special effects, Technicolor's 180,000-square-foot state-of-the-art production facility also houses India's



Moving Picture Company (MPC) and a DreamWorks-dedicated unit which has more than 500 employees supporting Technicolor Digital Productions.

With more than 1,200 staff now working at the Bangalore facility and digital production offices and studios in L.A., New York, Vancouver, London and Beijing, Technicolor is watching efficiencies closely to maintain its high standards for CGI animation.

"At Technicolor India, we really focus on the client by creating micro-facilities or creative units that work exclusively with a specific client," says Technicolor Digital Productions president Tim Sarnoff.

"So when you walk into the facility, the Nickelodeon area looks like you are working at Nick because the signage is Nick and the people are working on Nick shows. It allows the brand concept to filter all the way through the animators' work to the screen."

As for new technology, Sarnoff says the studio uses its proprietary tech on projects that require expertise from its research and innovation group. For example, it has created its own mo-cap cleanup tools and developed a number of different proprietary fur and hair solutions for CGI animation.

The company, which has grown significantly and is able to handle all CGI animation in-house, thrives on collaborating with its internal divisions to see third-party projects to fruition.

"We take all of the research from our different groups and use it when necessary. For example, we currently have an animation pipeline being designed by MPC, our animation group and our corporate research and innovation group."

As for expanding into the acquisition and development of original content, Technicolor launched its first dedicated original development team in L.A. in 2010, paving the way for a number of new projects, including CGI comedy *Pete and Pickles*. In development, the 26 x half-hour series for six- to 10-year-olds is based on the picture books of the same name by bestselling editorial cartoonist Berkeley Breathed (*Bloom County*). Nine additional original projects in various stages of development are also in the incubator, while the arm just wrapped a new CGI Barbie project with Mattel.

"Our desire to produce our own content is really an extension of our effort to be connected to the talent and producers. Our services business, which spans across motion picture, TV, direct-to-DVD, Blu-ray, video games, 3D, and 4D location-based businesses, needs much more short-term attention. But both our production development team and our services group work hand-in-hand to make each successful," says Sarnoff.

Another studio now balancing CGI service work with original content is Toronto, Canada-based Arc Productions (formerly Starz Animation). With a staff of more than 250, the outfit cut its teeth in feature film work with *9* and *Gnomeo and Juliet*. It's now expanding into TV production for the first time, thanks to a deal inked with Mattel-owned HIT Entertainment last February. Arc will be animating the 17th season of HIT's iconic *Thomas & Friends* series.

FILM TO TV

Taking over from Vancouver's Nitrogen Studios, Arc is delivering new 11-minute CGI episodes for air in fall 2013, and has just put the finishing touches on the first 44-minute *Thomas & Friends* special. It's also in the middle of delivering 3D stereoscopic elements for the new *Matt Hatter Chronicles* series from Platinum Films in the UK and Toronto, Canada-based Dream Mill.

According to Arc president Jeff Young, having a studio with the capability to work in both film and TV creates benefits for all of its clients. In addition, many of the tools Arc uses for



features are transferable to TV and make the production process more efficient.

"The exciting challenge for us as a company is taking all the tools we built for feature films and using the techniques in the episodic TV space," Young says.

Over the last three to five years, Arc developed in-house software called Pose Manager. It allows the studio to capture actions or motions that occur on a regular basis in a database so they can easily be brought back into animated scenes without having to start from scratch.

"For *Gnomeo*, the characters' facial expressions and phonetics were key, so instead of each animator looking for a unique way to create a particular expression, there is a Pose Manager that already exists to access the exact pose required," explains Young.

"It was really effective on our feature films, but at the pace that episodic production moves, it's become a far greater tool or asset than we had envisioned."

MONSTROU'S MO-CAP MELD

While motion capture is not new to children's animated TV (The Jim Henson Company has been using digital puppetry since 1989 and first used its Henson Digital Puppetry Studio for *Frances* in 2004), it's been a differentiating point for new Singaporean production and distribution house Monstrou Studios.

The four-year-old company, which bought Vicon mo-cap technology two and a half years ago, runs lean with a staff of 26 that's divided into two teams with different capabilities.

"One team is very good in 3D CGI animation from development to post, while our other team is skilled in live action. Both teams complement each other really well," says Monstrou's creative development director, Kenneth Goh.

While Monstrou provides a full range of services including modeling, animation, key frame, texturing and coloring, its cutting-edge mo-cap service is what helped convince Spanish prodco Sweatbox to partner with it and Catalan TV network Televisió de Catalunya (TV3) on *Nightbreeds*, a new 26 x 23-minute action-adventure CGI series that marks the first animated co-pro between Spain and Singapore.

Expected for delivery before the end of 2014, the series for kids ages nine to 13 will be animated and rendered at Monstrou, with post completed in Barcelona.

According to Goh, the studio's mo-cap services offer a cost-effective solution for TV and film producers. "For approximately US\$2,100 per day, clients can use our studio for eight hours to capture whatever they need and we can also offer project consulting and scheduling," he says.

Monstrou's first series to utilize mo-cap is *Tritans 2*, a co-pro with Malaysia's Clover Sky. The first two seasons of the 3D CGI-animated sci-fi series have been delivered and broadcast by Singapore's MediaCorp. Looking for global eyeballs, Monstrou shopped the series for international distribution at MIPCOM and continues to look for partners.

According to Goh, finding distribution is the most challenging step, but luckily both *Tritans 2* and *Nightbreeds* have been backed by Singapore's Media Development Authority (MDA).

"MDA support is pivotal for animation companies in Singapore. Knowing there is local government support here is a big incentive for potential international producers to consider partnering with Singapore companies."



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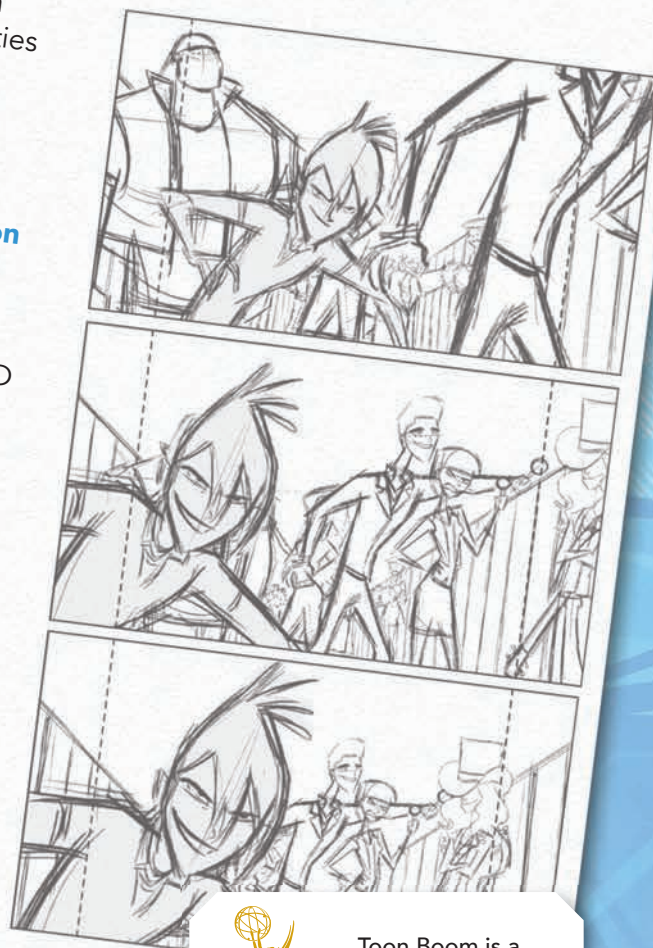
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While its bread-and-butter is service work, Technicolor is branching out into original productions with *Pete and Pickles*



While Arc is maintaining the same CGI look of the existing *Thomas* series, it is using new Vue software designed to fix landscape issues for forests, trees and grass. "It's allowed production to move at a much quicker and more seamless pace," says Young.

With new TV partnerships moving forward, Arc, like Technicolor, is looking to secure more long-term sustainability by jumping into original content. It recently entered into a multi-picture co-production partnership with Toronto-based financier and distributor Tayrona Films that will see Arc produce a slate of four animated feature films. The first one, *The Legends of the Underzoo*, is an original CGI concept about four animal cubs that embark on an adventurous journey in pursuit of treasure when their zoo is threatened.

"The deal is significant because it means Arc will move from being solely a service provider to being a producer of original content. It changes our landscape and how we look at the future," says Young.

Arc has also stepped into the online world with its work on Mattel's successful *Barbie Life in the Dream House* CGI-animated web series, which has racked up nearly 50 million views since its first 14 eps launched in May.

Focusing on new CGI technologies and nurturing strong partnerships is also paramount for Ireland's Brown Bag Studios (*Doc McStuffins*, *Octonauts*, *Olivia*). The company offers a one-stop shop of services including animatics, art direction, modeling, rigging, lighting, key animation, research and development, sound mixing and post production, but sees itself more as a co-production studio.

PARTNERING UP

Since launching in 1994, Brown Bag now employs approximately 126 people and has working relationships with overseas studios in the US, Singapore, India and Indonesia.

"We pretty much do it all, but we prefer to be a co-production studio. We like to have directors in-house and have a say in the scripts," says Brown Bag's co-founder and creative director, Darragh O'Connell.

The shop's newest CGI project, a re-imagined *Peter Rabbit* series based on the classic books by Beatrix Potter, is a collaboration with Silvergate Media, Penguin Books and Nickelodeon US.

The 52 x 11-minute series slated to launch in spring 2013 is currently in production, with a 22-minute Christmas special set to debut next month on Nickelodeon and CBeebies in the UK. Currently delivering 66 minutes of total animation per week, scaling has been a big challenge

for Brown Bag. But because the studio carefully picks projects it loves with its partners, it has been able to deliver high-quality results.

"Budgets are coming down and standards are going up, so it's tough. But we have a pipeline and R&D team. And while we do work with overseas studios, we try to do every key element here, from modeling and rigging, to lighting and key animation," says O'Connell.

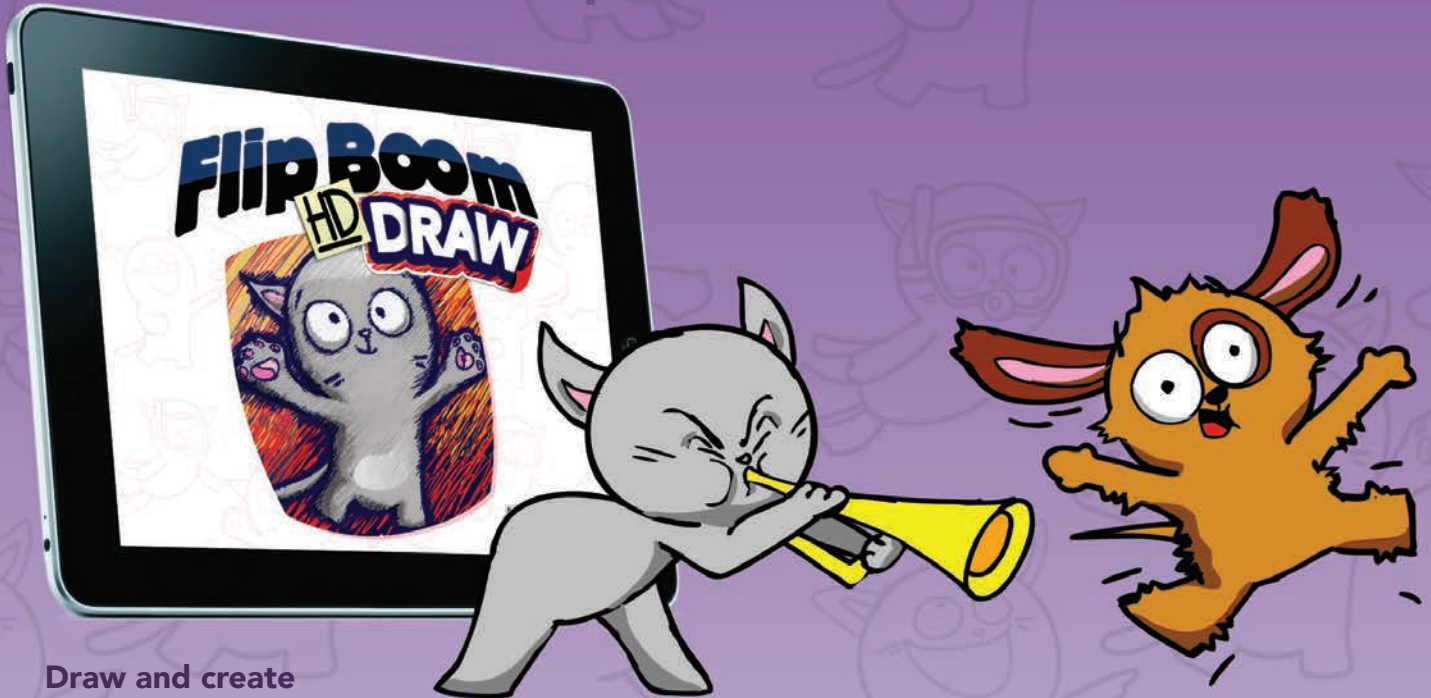
Looking ahead, Brown Bag is testing feature film waters for the first time with its animated *Night Glider*, a co-production with indie Wind Dancer Films that's expected to start production in 2013. It's also delivering the first season of CGI-animated preschool series *The Happy Hugglemonsters* and second seasons of *Doc McStuffins* and *Octonauts*, while also developing Kimochis into a series (the new property is intended to help preschoolers with emotional development) and creating another series based on popular gaming website Fight My Monster.

Across the Atlantic, New York-based multiplatform company Curious Pictures has also bought into the strategy of adding more areas of expertise and testing hybrid models to its CGI capabilities—particularly 3D stereoscopic.

"3D has become more user-friendly for TV, more affordable with faster rendering. And there are really talented artists in the industry," says Curious SVP of studios, Camille Geier.

The company, which is currently working on the fourth season of Nick Jr.'s CGI-animated series *Team Umizoomi*, also has two new yet-to-be-announced 3D CGI pilots in the works, one for PBS and the other for Disney Junior. 📺

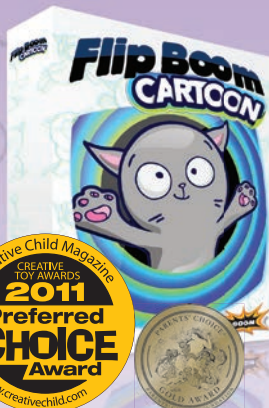
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PROGRAMMING INNOVATION

While the process of producing 2D has changed radically in the last decade, production houses still strive to maintain the look and feel of traditional hand-drawn animation via digital means. And kidcasters the world over remain more than happy to fill their airwaves with digitally produced content that mimics the decades-old artform. Not surprisingly, with 2D right now, it's all about the software.



Arguably, Montreal, Canada-based software developer Toon Boom has helped lead the 2D charge, developing multiple products that have made the production of 2D animation more cost-effective over time. While the software can be used to produce other styles of animation, including CGI, its hallmark product, Harmony, has become a predominant player in 2D animation production. With a client list of blue-chippers like Disney, Warner Bros. Universal, Fox, Nelvana and Cartoon Network, Toon Boom's software is currently employed in 122 different countries and the company has been recognized recently with a Primetime Emmy for its new Storyboard Pro software.

Joan Vogelesang, president and CEO of Toon Boom Animation, says it's her company's goal to give producers the tools they need to tell a story in the most cost-effective manner. "Our software enables people to unleash their own creativity," she says. "People were losing money by going in and out of different technologies, so a product like Harmony allows that money to be re-invested in the production."

In essence, Harmony is an umbrella software program that allows animators to utilize the digital advantage in their production. It contains features that allow production houses to compose animation, and most importantly, control and manage the workflow from start to finish. The suite includes tools that can easily manipulate textures and line widths, character shape and color, and integrate photos and 3D images. Both

Harmony and Storyboard Pro are largely responsible for the emerging paper-less environment of 2D animation studios. The savings from that innovation alone are noticeable to producers' bottom lines.

The Storyboard Pro software allows studios to visualize concepts before going into production and easily integrate additional assets like photography to pitch concepts without a major cash outlay. "We have a powerful pipeline management system," says Vogelesang. "As well, people can work from remote sites, the software can pull it all together, and we can re-use assets to cut time out of production."

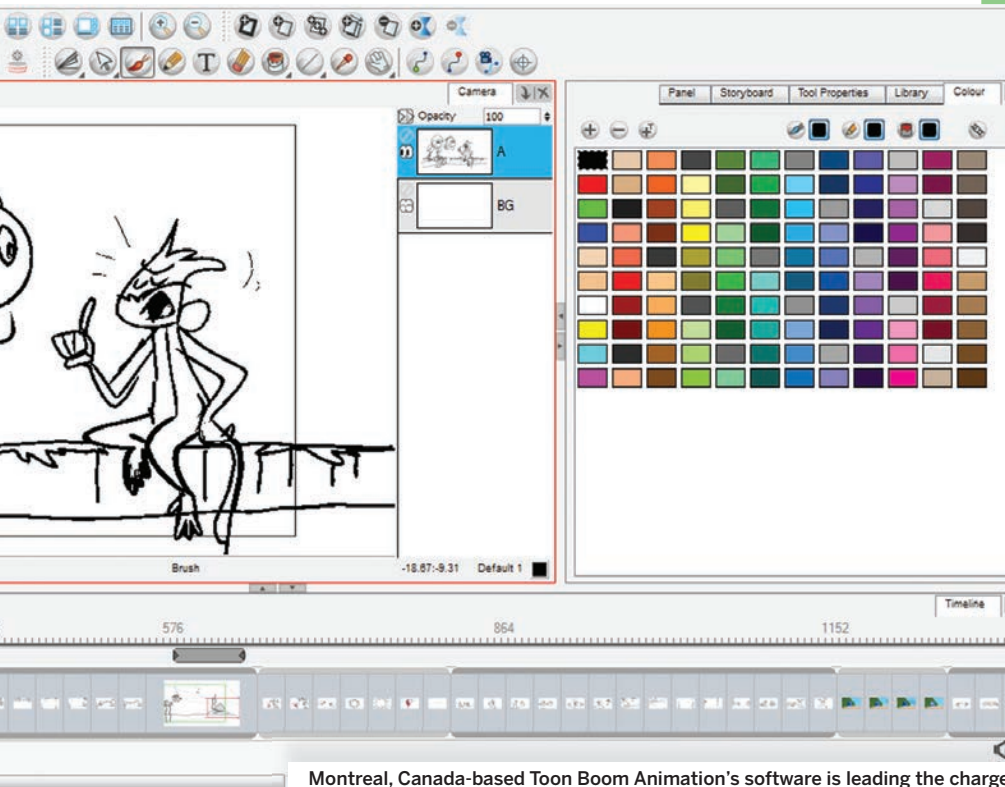
Developing a library of animation that can be re-used and re-purposed is another tool that has expedited the entire animation process. "You can animate three different poses and the software will animate the in-between motions between the three," says Vogelesang. "There are also texturing tools. It's so deep, it's amazing. You can really save a fortune by using it."

Heather Walker, head of development at Toronto, Canada's Yowza Animation, agrees that using computer software is the only way to effectively deliver content in the current market. "It's a function of time and cost" she says.

When the studio was founded in 1996, the majority of its productions were hand-drawn, however things went fully digital about six years ago. "Computers just became more cost-effective and efficient," she says.

2D

By Gary Rusak



Montreal, Canada-based Toon Boom Animation's software is leading the charge in creating paperless 2D workflows

According to Pete Denomme, CEO and executive producer at Yowza, the difference is substantial and has relegated the traditional hand-drawn technique to a few speciality features. "With hand-drawing, if you get 30 seconds a week from an animator you would be very lucky," says Denomme. "Now you can get one to two minutes a week per animator."

Currently, even when a project strives to mine the nostalgic look of traditional hand-drawn animation, the economic benefits of using a software suite cannot be ignored.

A case in point is *Winnie the Pooh*, a feature film produced by Walt Disney Animation Studio and released in July 2011. The studio decided to use a hybrid of traditional hand-drawn animation and computer animation produced using Toon Boom's Harmony suite. The results, according to Denomme, who has intimate knowledge of the production, showed that the new technology is essentially indistinguishable from the traditional animation. "You couldn't pick out which parts were hand-drawn and which were computer-rendered," he says. "That is why I think that Disney would do the next one fully in Harmony."

Another aspect that has helped the spread of Toon Boom's Harmony as a major player in the production of 2D animation is the company's approach to development. "It's a very close relationship," says Walker. "Toon Boom is driven by the industry. It is constantly working with producers to develop new tools. It's not like they're developed in a vacuum; there is a constant give and take."

The close relationship between Toon Boom and its clients has been a key component in developing innovations that have spurred more efficiencies in tools that allow animators to change characters, deform drawings and alter things like color palettes and line width with a simple key stroke.

The next innovations from Toon Boom, according to Voglesang, will mirror the world of computing in general with a bigger reliance on cloud computing and the integration of iPad and Android tablets into the pipeline. "It's not standing still at all," she says. "It's moving forward because the demand is moving forward."

With a cost on the lower end ranging from US\$200,000 to US\$250,000 for a 22-minute ep, 2D comes in about US\$100,000 cheaper than its CGI counterpart. But producers agree that saving money is not a good enough reason to chose one format over another.

"You have to look at what is good for the project and then think about budget concerns," says Julie Stall, VP of production at Toronto, Canada-based Portfolio Entertainment.

It's a familiar concept for Yowza's Denomme. "These are all techniques to tell a particular story," he says. "Some concepts don't work for 3D and some don't work for 2D. Everything starts on paper and from there we decide what method will be best to tell the story we want to tell."

However, there are a few axioms that hold true. For instance, the traditional 2D look seems to work well for a certain

brand of comedy. "Where you want the animation to be sharp, slap-sticky and funny, I believe 2D really works," says Stall.

Walker agrees. "You can get very snappy movements with 2D," she says. "Comedy just seems to come from that."

Vogeleang says the traditional 2D look creates a connection between the audience and the characters on-screen that can be stronger than CGI.

"I have seen studies that say audiences are more apt to watch a 2D production more times than a 3D one," she

says. "Perhaps it's that emotive look and feel that connects. Sometimes you just fall in love with the characters."

Stall adds that the concerns and aims of the producer often dictate the shape of a production. "If your property is book-based and you want to stay true to that look, you will probably opt for 2D," she says. "But if you are dealing with a preschool property that has a toyline component, then CGI works well from a merchandising and licensing point of view." ➡

A LABOR OF LOVE

In a fashionable section of London, a small animation company is attempting to turn the clock back to a time when animation was a hand-drawn affair.

"We would love to lead the re-emergence of traditional 2D animation films made in the UK," says Ruth Fielding, joint MD at Lupus Films. "We hope people will see it and say, 'God, that is beautiful.'"

Fielding's referring to a 22-minute special movie feature that was commissioned by UK broadcaster Channel 4 to celebrate the 30th anniversary of the original adaptation of Raymond Briggs' beloved book *The Snowman and the Snowdog*.

The original movie has become an unailing part of British Christmas programming, and while the pricetag to produce a sequel was far beyond the going rate for 2D animation, commissioning broadcaster Channel 4 agreed to foot the bill for its estimated US\$3.2-million budget.

"We pitched it, but said it had to be made in the UK and drawn by hand," says Camilla Deakin, Lupus Films' other joint MD. "They totally saw that vision, and although it was expensive, they agreed."

From there, Lupus Films set about building a staff to handle the production, one that would include a whack of talent experienced in practicing an almost-lost artform.

"We probably employed all the hand illustrators in the UK," says Fielding. "Frankly, we resurrected quite a few artistic careers."

The production would take a full year from start to finish, as 94 crew members worked to develop more than 35,000 total frames, including 17,000 individually drawn and colored frames. On average, each animator topped out at producing about five seconds of footage per week. While the original was made by drawing images directly on film with crayons, the technique was deemed impossible to re-create. However, the animators still hand-drew and colored in each frame. "The drawings are just incredibly detailed," says Fielding. "It's really the highest-end thing we have ever done."

While a paperless approach has taken the industry by storm, *The Snowman and the Snowdog* used more than 200,000 individual pieces of paper and more than 4,500 colored crayons.

On a recent October afternoon, the assembled staff was putting the finishing touches on the project, which includes the detail-oriented hand-rendering and color work with watercolors and wax crayons.

"People actually don't believe us when we say we are going to do the whole thing by hand," says Robin Shaw, assistant director of the film, while perched over a nearly finished cel. "At a certain point, you start to worry about how it's all going to fit together. The fine-tuning and tying up the loose ends is the hardest part."

The new updated version will feature elements that reflect modern-day London, such as the London Eye and the Gherkin, along with a new character and story twist. However, the look and feel will be intrinsically connected to the original version, and the producers expect that it will air alongside the original during the Christmas holidays.

"There is no doubt about it, hand-drawn is an expensive option," says Deakin. "But you can see and feel the difference."

GARY RUSAK



Lupus Films' *The Snowman and the Snowdog* is 100% hand-drawn



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**STOP
MOTION**

Aardman continues to lead the way in stop-motion production

STOP-MOTION REDUX

By Gary Rusak

Stop motion is still a major player in the world of animation. While the slick look of CGI productions has dominated the toon landscape in recent years, there is still room for a technique that dates back to the late 19th century. While iconic figures such as Nick Park and Tim Burton are most closely identified with the artform, there is an army of craftsman and artists who toil in the time-consuming endeavor of animating real tactile objects. The recent success of full-blown stop-motion features, as well as a crop of new TV series, might just be signalling a return to the beloved animation style that started it all more than a century ago.

"There might be a renaissance for stop-motion feature films, but in terms of broadcast it seems to be just bubbling along," says Merlin Crossingham, creative director for Wallace & Gromit at Bristol, England-based Aardman Animations. The iconic inventor and his dog first appeared on the scene in 1989, and with the help of four short films and one full-length movie produced in the last two decades, are now synonymous with stop-motion animation.

"Maybe I don't have the right perspective because I'm in the middle of it, but to me there hasn't been a particular up or down with stop-motion for broadcast," he adds.

Anne Wood, founder and creative director of Ragdoll Productions, made her company's name with the live-action/stop-motion hybrids *Teletubbies* and *In the Night Garden*, and is now returning fully to the stop-motion fold with a second season of *The Adventures of Abney & Teal*.

Wood explains that companies in the UK, like Aardman Animations, have kept the artform alive and relevant. Ragdoll is returning to the medium because its style will best serve the series' content and make it stand out from numerous CGI shows vying for the attentions of the same three- to six-year-old demographic.

Crossingham and Wood agree that the connection between stop motion and the audience is almost impossible to replicate. "People know when they look at something that existed," Crossingham contends. "There is an understanding that what they are seeing is tangible and that it really does exist."

Arianne Sutner is a producer for Portland, Oregon-based animation house Laika. The studio released stop-motion animated hit *Coraline* in 2009 and Sutner's most recent credit is as a producer for *ParaNorman*, which rolled out worldwide in August. The film has grossed approximately US\$95 million globally to date.

"It's always been around and it's always been appreciated because it's a beautiful art form," she says. "I've been working in stop motion for 23 years; I don't necessarily think the audience has an aversion to CGI so much as stop motion is just an artform people appreciate."

OUTSTANDING

The tactile feel and emotional payoff that many associate with the animation style is not only the result of putting real materials on-screen; it is also the result of a highly collaborative process that by its very nature is inclusive in ways that other animation styles are not.

"The actual animation itself is only one tiny part," explains Crossingham. "It is really multi-disciplinary. We don't say you have to study a particular thing; most of the people who are valuable really come out of left field."

Unlike other styles, where computer technical skill is paramount, stop motion pulls skills from a variety of disciplines like live theater and live-action productions. Additionally, the filming process dictates that many different elements of the production have to come together in a more holistic way than they do on a 2D or CGI project. Stop motion is not a linear process.

"When we launch a shot, every department has to be on set," says Sandell. "The set dressers, animators, riggers, DP and director all have to come together in an amazing way to get the shot. There is nothing more satisfying than seeing all these disciplines come together."

Channel 5 in the UK recently commissioned a second season of Manchester, England-based Komixx Entertainment's preschool production *Toby's Travelling Circus*. When producers initially set out to make the 52 x 10-minute series, the option to produce it in a cheaper format was tempting.

"We could have gone the CGI route," says Andrew Cole-Bulgin, joint CEO of the company. "We had a number of companies approaching us with the idea of doing a CGI stop-frame lookalike."

The ability to shave US\$2 to US\$3 million off a US\$7-million budget was tempting, but ultimately the decision to

stick with the original animation plan has paid off in good ratings, a unique finished product and a greenlight for a second season.

"Kids are a brilliant audience," Cole-Bulgin explains. "They are unforgiving, and if you put rubbish in front of them they will turn off the TV right away."

The series tells the tale of Toby, a seven-year-old boy who runs his own circus. Complete with a visually arresting cast of carousels, rocket rides, acrobats and clowns, the producers believe the show's success is due in part to the fact that it stands out visually from other preschool programs.

"We had to be slightly crazy to do it in stop motion," says Richard Randolph, head of production and creative director at Komixx Entertainment. "It was quite a challenge, but when I saw what it looked like with the actual puppets it was fantastic. The way the movement translates is stunning."

NEW TECHNIQUES

Like all other forms of production, the digital revolution changed the way stop motion is produced. "The biggest technological advance in recent history is the use of shooting on digital," says Crossingham. "Now we are able to see what we are doing while we are doing it, instead of having to wait."

However, the ascension of another digital byproduct, HD, has also made it harder to hide the little imperfections that crop up during production. The attention to detail required to scrub out those small flaws has added hours to production schedules, which doesn't exactly help the bottom line.

"It's a double-edged sword," says Crossingham. "Before, you didn't have to pay so much attention to detail. And now we have to be very careful about what we present to the world."

Another key innovation has been the use of 3D printing technology, also known as rapid prototyping, to improve the manipulation of character faces.

"We started using 3D printing technology for *Coraline*," says Sandell. "Before, we used to use tiny gears and joints in faces but found that we could achieve the same thing through 3D printing."



Ragdoll Productions' *The Adventures of Abney & Teal*

She adds that the use of 3D printing technology allows animators to create unique facial expressions that can then be placed onto models and integrated into scenes.

Bowden also sees the innovation in 3D printing as a major innovation in the century-old artform.

"It's a very exciting development," he says. "It's really the ultimate in visual trickery."

COST

While it's universally acknowledged that stop motion costs more to produce than other animation styles, the issue of price invites some debate.

Crossingham says that it took Aardman almost five years to produce *The Pirates! Band of Misfits*, its feature film that was released last March. The production had a crew of more than 400 people, and filming lasted for roughly 20 months. "It's labor-intensive," he says. "It's a lot of people working for a long time."

The production was estimated to cost around US\$55 million (far less than an equivalent CGI film—Pixar's *Toy Story 3* had an estimated US\$200-million production budget, for example) and has grossed roughly US\$121 million at box offices worldwide.

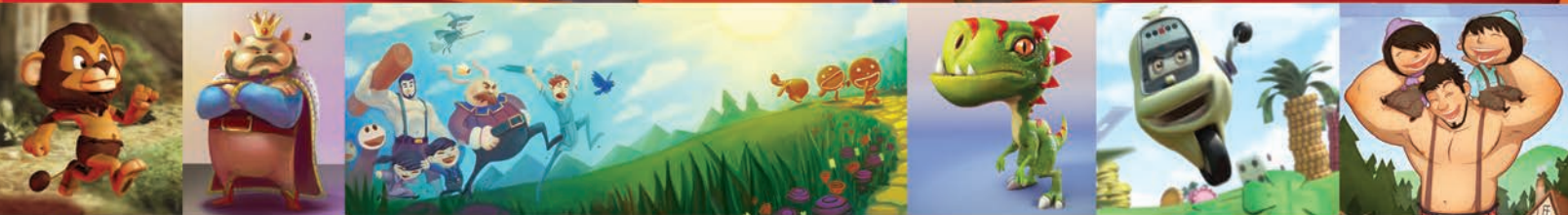
In comparison, for *Coraline*, the schedule called for 14 months of pre-production, an 18-month shooting schedule and an additional six months in post production. The process

took place in a 150,000-square-foot studio with more than 300 artists. The film cost an estimated US\$70 million to produce and grossed around US\$150 million globally.

The box-office haul of these stop-motion productions has opened the eyes of the studios and spurred more productions, including lauded director Guillermo del Toro's much anticipated stop-motion take on *Pinocchio* and forthcoming efforts from both Aardman and Laika.

Crossingham says the perception that stop motion is a tangential part of the animation industry is changing, as more and more studios are starting to see commercial returns.

"I think it might be seen as a cottage industry, and that used to be true," he says. "But now stop-motion films are turning over multi-million pounds. The community is quite small, but the contribution to the industry is massive." ➕





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MIXING IT UP

**MIXED
MEDIA**

By Kate Calder

As broadcasters hunt for unique and creative standouts, several producers are tweaking techniques and mixing media to freshen up traditional cartoons. Photo-real elements, life-like facial expressions and cut-out stop-frame techniques give animation a new tangibility. Behind the scenes, the studios inventing new methods possess that special combination of talent and tenacity required to get the job done.



Strange Hill High's rod puppets come to life with CGI expressions and VFX

PICKING PARTNERS

The BBC had been discussing a concept for a puppet property inspired by a line of Japanese vinyl toys for several years before it settled on the premise for *Strange Hill High*. The upcoming series for six- to 10-year-olds follows the misadventures of three students who investigate bizarre and creepy otherworldly occurrences at their school. CBBC first joined forces with FremantleMedia Enterprises, and then brought on L.A.-based Josh Weinstein, a former showrunner for *The Simpsons* and *Futurama*, to head up the British and American writing team. The next step was finding the right production studios to carry out the task of bringing rod puppets to a new level of realism by fusing them with CGI facial expressions. UK-based MacKinnon and Saunders came on-board to carry out the character design and puppetry, while Manchester's Factory Transmedia partnered up to take on the tedious task of fusing the puppetry and animation together.

"It was so new that no one really knew what was possible and what wasn't. You just had to have vision and courage. We didn't



Salvaged beach objects, water color artwork and photo images harmonize in *Driftwood Bay*

know what we were doing, but we knew what we wanted it to look like," says CBBC's head of acquisitions, Sarah Muller.

Factory Transmedia had already been experimenting with creating digital facial performances for stop-frame shows. "It's been a desire of mine to take it further," says MD Phil Chalk. "The notion of not having to make dozens of replacement mouths for a stop-frame character opened up a world of possibilities for combining digital facial techniques."

Besides creating a battery of more than 60 puppets, 40 individual sets and approximately 2,500 props, Chalk says production boiled down to three key processes—live-action filming, 3D tracking of every shot, and finally, the application of mouth- and lip-syncing techniques. "It was a challenge because we shoot the live puppets with a digital film camera, and then we have to track all this live footage in order to apply the demands," says Chalk. The detailed process included painting out tell-tale tracking markers on each character's head. Additionally, Factory also used a wide array of after-effects for other story points such as an epic food fight that includes explosions and flying veggies.

Chalk says the show was budgeted and scheduled in line with a stop-frame show, which included eight weeks of shooting in the puppetry studio and an additional eight weeks in CGI. And he estimates the production was split 70/30 between after-effects and Maya-led CGI. "It's a level of insanity that we didn't know existed," admits Chalk.

"Right now there is a lot of stuff that looks the same. People aren't taking risks because of the economic climate, so things are starting to look similar to each other," says Sarah Muller. "So supporting this show and endeavour on such a scale really demonstrates the BBC's willingness to experiment."

FROM SPOTS TO SERIES

Frank Falcone, president and creative director at Guru Studio in Toronto, Canada, also has a mixed-media series in development that will be stop-motion led with CGI-assisted sets and facial animation. Though he was tight-lipped on the working title at press time, Falcone explains that incorporating CGI will allow production to reduce the scope of the stop-motion set. "The big cost in stop motion is having a giant shooting stage that costs money to light and get floor space for," says Falcone. "We'll extend the sets in CGI so they have more depth. It's a technique for getting it under the threshold for producing it."

Now with co-productions in development and its own 2D series *Justin Time* underway, Guru built itself up with a decade's worth of service work, producing commercials and TV series. Experience working on commercial spots, in particular, gave Guru a foundation for leading projects visually and finding creative solutions for low budgets. For example, keeping the budget down on a spot in which the client wanted CGI characters superimposed on live-action footage meant "faking" the background shots by panning across still shots. And Falcone explains that the tactile, felt tabletop look of the studio's new series in development, *Little Movers*, isn't mixed-media at all, but a compositing trick done entirely in 2D.

"All of the rules of producing still apply, but the genesis of the concept and the way you come up with these visual ideas means you should come from a place of experimentation," says Falcone. "We try to make every show have its own production process—a clear television-oriented process, but built around the creative look."

A background in graphic design and experience working in commercial animation is what helped Colin Williams, creative director of Belfast, Ireland's Sixteen South, spot the potential for

a 52 x seven-minute series based on art-work made from salvaged beach objects like shells, pieces of glass, metal and bits of wood. *Driftwood Bay* imports photos of characters and props assembled from objects found on a local beach into 2D animation that’s juxtaposed against photographic and watercolor backgrounds.

“The art was so strong and beautiful, so it was natural to develop the idea of a girl living on the shore and finding stuff that sparks adventures taking her to imaginary places where everything is made from stuff found on the beach,” says Williams.

Sticking to the artistic visual purity of the show meant developing a painstaking process of photographing every piece of beach salvage—about 25 tiny pieces in one character alone—to build the animated models. The process ends up giving the finished product a stop-motion feel, though it’s made using 2D CelAction software. On many occasions, the team completely redesigned characters with rounder stones and objects when Williams realized that although they looked good in static head-on shots, when they turned to the side, the characters looked like flat stacks of pancakes.

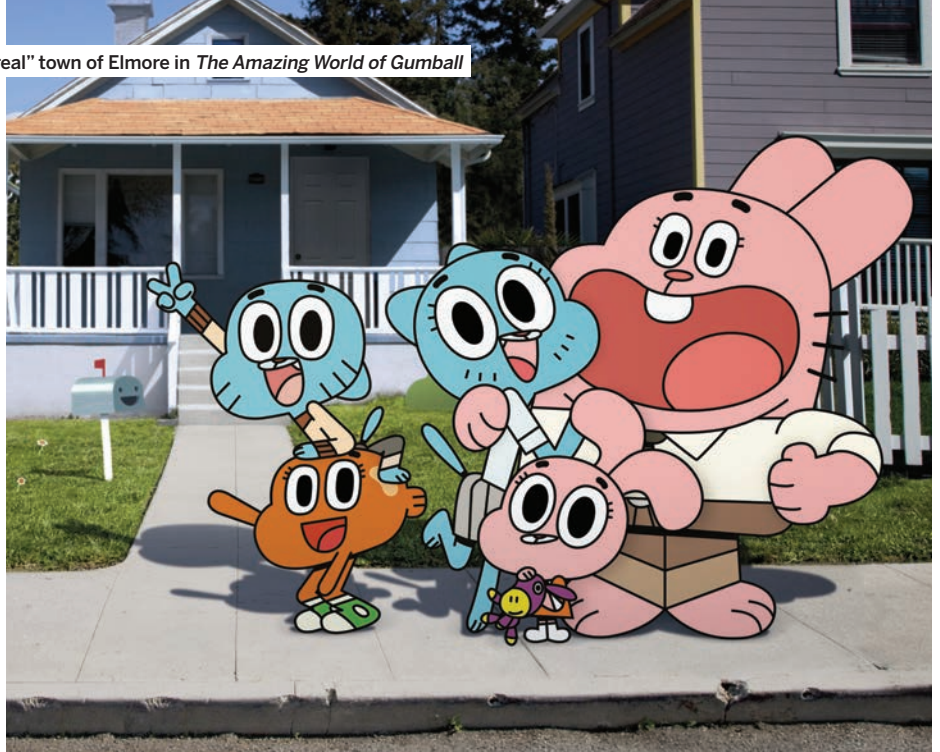
NOW MAKE IT HAPPEN

A show concept with an arresting visual look—along with great comedic appeal—also caught the interest of Cartoon Network when it took internal pitches as part of its nascent development initiative in 2007. *The Amazing World of Gumball* was born from a pitch made by Ben Bocquelet, an in-house animator with a background in commercial work honed at London-based commercial production studio Passion Pictures. The pitch was a funny idea about the misadventures of 12-year-old cat Gumball and a slew of mismatched characters that combine 2D and CGI animation dropped onto a photo-real background.

Though the bulk of the creative development and mixed-media animation was done in-house (with animation and compositing outsourced to Studio Soi in Germany and Ireland’s Boulder media in the first series), it’s worth noting the creative problem-solving and extreme attention to detail that went into creating Gumball’s world.

Central to the show’s concept was that its main setting, Elmore, had to look like a real town where it seemed plausible that this melee of characters could actually live. The series art director, Antoine Perez, says it took several experiments, in which the background plates were manipulated via Photoshop to get the look just right. And here’s where things get technical.

“The brain has to be tricked into thinking that it’s looking at the real world and it can unconsciously pick up on minor perspective mishaps,” says Perez. “The solution is to film the back-



ground plate through a virtual camera, even if it’s not moving. You can then make the virtual camera zoom in, look left or right, and the perspective will respond realistically.”

Perez also explains that having a solid pre-visualized plan for each episode was key in cutting down the number of retakes needed to mesh the different styles together. Once that was nailed down, he says the 2D, CGI and background work was done simultaneously.

TRICKS OF THE TRADE

Managing different production pipelines simultaneously and then bringing everything together at the end is just what Manchester, England-based Impossible Kids is trying to accomplish for its new live-action show in development, *Animatter*. The series is about kids who can transform into beastly creatures via a rogue military device, and it incorporates about two minutes of animated footage per ep. This animation features comical monsters with over-the-top personalities that are depicted using dynamic camera angles, à la *The Mask*. Scripts and creature design will be done in the UK, and live-action casting and filming carried out in Canada. Impossible Kids selected Australia’s Ambience Entertainment to produce the animation with live-action footage.

“Their tracking tests blew me away,” says Impossible Kids creative director Jon Doyle. “It looks like someone has swung a hand-held camera around to a CGI creature and they are just pointing the camera around at this thing.”

Doyle adds that the prodco went with Ambience based on its track record of animating comical creatures, (as in series like *Erky Perky*), in a way that keeps the character shots more funny than scary for younger viewers. To streamline the process, a team from Australia will travel to Canada for the live-action shoots to collect data to create animatics. The animation will be locked onto the live-action plates in Australia and then shipped back to the UK, to cut down on the compositing and post-production phase in London. ➡

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